2011 Consumer Confidence Report

Water System Name: **Happy Acres Mutual Benefit Water System** Report Date: May 04, 2012

We test the drinking water quality for many constituents as required by State and Federal Regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2011.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Type of water source(s) in use: Well

Name & location of source(s): Well 01 located at 2561 Stony Point Road, Petaluma, CA 94952

Drinking Water Source Assessment information: A source water assessment was conducted for Well 01 of the Happy Acres Mutual Benefit Water System in January 2002. The source is considered most vulnerable to the following activities not associated with any detected contaminants:
Agricultural Drainage
Discussion of Vulnerability: There have been no contaminants detected in the water supply, however the source is still considered vulnerable to activities located near the drinking water source.
A copy of the complete assessment my be viewed at:
Drinking Water Field Operations Branch
50 D Street. Suite 200
Santa Rosa, CA 95404
You may request a summary of the assessment be sent to you by contacting the Field Office Representative at (707)576-2145.

Time and place of regularly scheduled board meetings for public participation: Annual Board Meeting is held each February or March at Dunham School or as notified.

For more information, contact: Shaun Kesterson, Watermaster *Phone:* (707) 795-5353

TERMS USED IN THIS REPORT:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL):

Primary Drinking Water Standards (PDWS): MCLs or MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap. **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.	**Variances and Exemptions**: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions. **ND**: not detectable at testing limit **ppm**: parts per million or milligrams per liter (mg/L) **ppb**: parts per billion or micrograms per liter (ug/L) **ppt**: parts per trillion or nanograms per liter (ng/L) **ppq**: parts per quadrillion or picogram per liter (pg/L) **pCi/L**: picocuries per liter (a measure of radiation)

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA and the state Department of Health Services (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Tables 1, 2, 3, 4, and 5 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	0	Human and animal fecal waste

TABLE 2 - SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper	No. of samples collected	90th percentile level detected	No. sites exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	10	<5.0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	10	0.61	0	1.3	0.3	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	3/9/09	17	NA	none	none	Salt present in the water is generally naturally occurring
Hardness (ppm)	3/9/09	40	NA	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

**Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.*

TABLE 4 - DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Nitrate (as nitrate, NO_3)	3/15/10	8.5	NA	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Arsenic (ppb)	3/9/09	2.1	NA	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Fluoride (ppm)	3/9/09	0.37	NA	2	1	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	Quarterly in 2007	0.21 AVERAGE	NA	15	0	Erosion of natural deposits
Radium 266 & 288 (PCi/L)	Quarterly in 2007	0.11 AVERAGE	NA	5	0	Erosion of natural deposits
TTHMs (Total Trihalomethanes) (ppb)	3/9/09	1.3	NA	80	0	By-product of drinking water chlorination, treated water sample
Chlorine (ppm)	Monthly in 2008	See range	0.01-0.68 (as Cl_2)	4.0 (as Cl_2)	4.0 (asCl_2)	Drinking water disinfectant added for treatment, treated water sample

TABLE 5 - DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD						
Chemical or Constituent	**Sample Date**	**Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Contaminant**
Iron (source) (ppb)	3/9/09	**1700***	NA	300	0	Leaching from natural deposits; Industrial wastes
Iron (treated) (ppb)	3/21/11	<100	NA	300	0	Leaching from natural deposits; Industrial wastes
Manganese (source) (ppb)	3/9/09	**170***	NA	50	0	Leaching from natural deposits
Manganese (treated) (ppb)	3/21/11	<20	NA	50	0	Leaching from natural deposits
Turbidity (NTU)	3/9/09	0.29	NA	5	0	Soil runoff
Total Dissolved Solids (TDS) (mg/L)	10/04/10	180	NA	1000	0	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	10/04/10	190	NA	1600	0	Substances that form ions when in water; seawater influence
Chloride (ppm)	3/9/09	14	NA	500	0	Runoff/leaching from natural deposits; seawater influence
Odor Threshold (TON)	3/9/09	3	NA	3	0	Naturally-occurring organic materials
Sulfate (ppm)	3/9/09	13	NA	500	0	Runoff/leaching from natural deposits; industrial wastes
Apparent Color (Unfiltered) (units)	3/9/09	10	NA	15	0	Naturally-occurring organic materials

TABLE 6 - DETECTION OF UNREGULATED CONTAMINANTS				
Chemical or Constituent	**Sample Date**	**Level Detected**	**Notification Level**	**Health Effects Language**
NONE	na	na	na	na

**Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.*

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Happy Acres Mutual Benefit Water System Inc. is responsible for providing high quality drinking water, but cannot

control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

1. Iron MCL exceeded - Iron was found in our source water at a level that exceeds the Secondary MCL of 300 ppb. The iron MCL is set to protect you against unpleasant aesthetic effects such as color, taste, odor and the staining of plumbing fixtures (e.g. tubs and sinks), and clothing while washing. The high iron level is due to leaching of natural deposits. Note that the final concentration of iron is reduced below its MCL by our treatment plant prior to entering the distribution system and your tap.

2. Manganese MCL exceeded - Manganese was found in our source water at a level that exceeds the Secondary MCL of 50 ppb. The manganese MCL is set to establish acceptable aesthetic quality of the water. High manganese is due to leaching of natural deposits. Note that the final concentration of manganese is reduced below its MCL by our treatment plant prior to entering the distribution system and your tap.